

IN THE CLAIMS

Please amend the claims as follows.

1. - 6. (Canceled)

7. (Previously Presented) A method for forming a via in an integrated circuit packaging substrate comprising:

making a via opening having a base, the base of the via opening positioned at a selected level that includes a first conductive material within the integrated circuit packaging substrate;
depositing an interfacial layer material within the base of opening;
placing a second conductive material over the interfacial material; and
heating the materials at the base of the opening, wherein heating materials at the base of the via opening includes directing energy from a laser at the base of the opening.

8. (Original) The method for forming a via of claim 7 wherein the laser energy is higher at the center of the laser.

9. (Original) The method for forming a via of claim 7 wherein the laser produces temperatures at the base of the via opening in the range of 400 to 600 degrees C.

10. (Original) The method for forming a via of claim 7 wherein the laser has a diameter of approximately half the diameter of the base of the via opening.

11. (Canceled) The method for forming a via of claim 1 wherein placing the second conductive material over the interfacial material includes plating copper within the via opening.

12. - 20. (Canceled)

21. (Previously Presented) A method for forming a via in an integrated circuit package substrate comprising:

- embedding an interfacial adhesion layer at a base of a via;
- placing a conductive material over the interfacial adhesion layer; and
- heating the interfacial adhesion layer and the conductive layer to form a solution that cools and includes teeth-like structures.

22. (Original) The method of claim 21 wherein embedding the interfacial adhesion layer further includes placing a conductive material over the interfacial adhesion layer.

23. (Previously Presented) The method of claim 21 wherein heating the interfacial adhesion layer and the conductive layer includes directing the energy of a laser at the base of the via.

24. (Previously Presented) The method of claim 21 wherein heating the interfacial adhesion layer and the conductive layer includes heating the interfacial adhesion layer and the conductive layer to a temperature within the range of 400-600 degrees C.

25. (Previously Presented) The method of claim 21 wherein heating the conductive material and the interfacial adhesion layer results in interdiffusion of the interfacial adhesion material and the conductive material.

26. (Previously Presented) The method of claim 25 wherein the interdiffusion of the interfacial adhesion layer and the conductive material is nonuniform.

27. (Previously Presented) The method of claim 25 wherein the interdiffusion of the interfacial adhesion layer and the conductive material forms teeth-like structures that extend into the conductive layer[s] at the base of the via.

28. - 30. (Canceled)

31. (Previously Presented) A method for forming a via in an integrated circuit package substrate comprising:

placing an interfacial adhesion layer at a base of a via;

placing a conductive material over the interfacial adhesion layer; and

stitching the interfacial adhesion layer and the conductive material, wherein stitching the interfacial adhesion material and the conductive material includes forming teeth-like structures that extend into the conductive layers at the base of the via.

32. (Previously Presented) The method of claim 31 wherein stitching the interfacial adhesion layer and the conductive material includes forming a solution of the interfacial adhesion layer and the conductive material.

33. (Previously Presented) The method of claim 31 wherein stitching the interfacial adhesion layer and the conductive material includes forming a plurality of structures formed from alloys of the interfacial adhesion layer and the conductive material.

34. (Canceled)

35. (Previously Presented) The method of claim 31 wherein stitching the interfacial adhesion layer and the conductive material includes heating the materials at the base of the via.

36. (Previously Presented) The method of claim 35 wherein heating the materials at the base of the via includes heating the materials at the base of the via to a temperature within the range of 400-600 degrees C.

37. (Previously Presented) The method of claim 35 wherein heating the materials at the base of the via includes directing a laser at the base of the via.

38. (Previously Presented) A method for forming a via in an integrated circuit package substrate comprising:

placing an interfacial adhesion layer at a base of a via;
placing a conductive material over the interfacial adhesion layer; and
interdiffusing the interfacial adhesion layer and the conductive material to form tooth-like structures to stitch the interfacial adhesion layer and the conductive material.

39. (Previously Presented) The method of claim 38 wherein interdiffusing the interfacial adhesion layer and the conductive material includes forming a plurality of structures of the interfacial adhesion layer and the conductive material.

40. (Previously Presented) The method of claim 38 wherein interdiffusing the interfacial adhesion layer and the conductive material is achieved by heating the materials at the base of the via.